

CLAIM LISTING

Please amend the Claims as follows:

This listing of claims will replace all prior versions, and listing, of claims in the application:

Applicant has made a good faith effort to list each and every prior claim, including any amendments or changes thereto (or status thereof) in this "Listing" section, however, should there be any discrepancy between the previous version of a claim (or status thereof) and the listing not explicitly amended, canceled or otherwise changed by this amendment, only the previous version (and status thereof) should be referred to as the intent of the Applicant.

Listing of the Claims:

1. (Currently Amended) A computer-readable medium storing a universal signature object for binding a digital signature to digital data, the universal signature object comprising:

at least one version of the digital data, wherein each version has a file format;

a second version of the digital data having a different format from said at least one version;

a digital signature of signature data, wherein the signature data is a function of the digital data; and

information concerning an application compatible with the file format of at least one of the versions.

2. (Original) The universal signature object of claim 1 wherein the file format of at least one version is a native file format of the digital data.

3. (Original) The universal signature object of claim 1 wherein the file format of at least one version is compatible with more than one application.

4. (Cancelled)

5. (Original) The universal signature object of claim 4 wherein the information concerning an application compatible with the file format of at least one of the versions includes information concerning an alternate application compatible with the alternate file format.

6. (Original) The universal signature object of claim 5 wherein the information concerning the alternate application includes an embedded executable file of the alternate application.

7. (Original) The universal signature object of claim 4 wherein the signature data is selected from the group comprising:

- one of the versions of the digital data;
- the universal signature object, prior to inclusion of the digital signature;
- a hash of one of the versions of the digital data; and
- a hash of the universal signature object, prior to inclusion of the digital signature.

8. (Original) The universal signature object of claim 4 wherein the digital signature is timestamped.

9. (Cancelled)

10. (Original) The universal signature object of claim 4 further comprising an additional digital signature by an additional signatory of additional signature data, wherein the additional signature data is a function of the digital data.

11. (Original) The universal signature object of claim 10 wherein the additional signature data is selected from the group comprising:

- one of the versions of the digital data;
- the universal signature object, prior to inclusion of the additional digital signature;
- a hash of one of the versions of the digital data; and
- a hash of the universal signature object, prior to inclusion of the additional digital signature.

12. (Cancelled)

13. (Original) The universal signature object of claim 1 wherein the signature data is selected from the group comprising:

- one of the versions of the digital data;
- the universal signature object, prior to inclusion of the digital signature;
- a hash of one of the versions of the digital data; and
- a hash of the universal signature object, prior to inclusion of the digital signature.

14. (Original) The universal signature object of claim 1 wherein the information concerning an application compatible with the file format of at least one of the versions includes information identifying the application compatible with the file format of at least one of the versions.

15. (Original) The universal signature object of claim 1 wherein the information concerning an application compatible with the file format of at least one of the versions includes an

executable file of the application compatible with the file format of at least one of the versions.

16. (Original) The universal signature object of claim 1 wherein the digital signature is timestamped.

17. (Original) The universal signature object of claim 1 further comprising:

 a public key, corresponding to a private key used to generate the digital signature.

18. (Original) The universal signature object of claim 1 further comprising an additional digital signature by an additional signatory of additional signature data, wherein the additional signature data is a function of the digital data.

19. (Original) The universal signature object of claim 18 wherein the additional signature data is selected from the group comprising:

 one of the versions of the digital data;
 the universal signature object, prior to inclusion of the additional digital signature;
 a hash of one of the versions of the digital data; and
 a hash of the universal signature object, prior to inclusion of the additional digital signature.

20. (Original) The universal signature object of claim 18 wherein the additional digital signature is timestamped.

21. (Original) The universal signature object of claim 18 further comprising:

a public key corresponding to the private key used to generate the additional digital signature.

22. (Original) The universal signature object of claim 1 further comprising:

use-permission information regarding permitted use of the universal signature object.

23. (Cancelled)

24. (Cancelled)

25. (Original) The universal signature object of claim 1 further comprising:

a universal-signature-object viewer for utilizing the universal signature object.

26. (Original) The universal signature object of claim 25 wherein the universal-signature-object viewer for utilizing the universal signature object comprises:

an application launching means for launching the application compatible with the file format of at least one of the versions; and

a viewer means for displaying information concerning the universal signature object.

27. (Original) The universal signature object of claim 1 further comprising:

a signing program for modifying the universal signature object to include an additional digital signature.

28. (Original) The universal signature object of claim 1 wherein the application compatible with the file format of at least one of the versions includes said version.

29. (Original) A universal-signature-object viewer for utilizing a universal signature object comprising at least one version of digital data, wherein each version has a file format;

a digital signature of signature data, wherein the signature data is a function of the digital data; and

information concerning an application compatible with the file format of at least one of the versions, the universal-signature-object viewer comprising:

an application launching means for launching the application compatible with the file format of at least one of the versions; and

a viewer means for displaying information concerning the universal signature object.

30. (Original) The universal-signature-object viewer of claim 29 wherein the information concerning the universal signature object displayed by the viewer means comprises at least one data field from the group of data fields comprising:

use-permission information regarding permitted use of the universal signature object;

a list of items contained within the universal signature object;

at least one version of the digital data;

a digital signature;
a name of a signatory of the digital signature;
a timestamp of the digital signature; and
digital signature verification results.

31. (Original) The universal-signature-object viewer of claim 29 further comprising:

an edit disabling means for disabling editing capabilities of the application.

32. (Original) The universal-signature-object viewer of claim 29 wherein the application launching means searches a computer system on which the universal-signature-object viewer operates to locate the application compatible with the file format of at least one of the versions.

33. (Original) The universal-signature-object viewer of claim 29 wherein the information concerning an application compatible with the file format of at least one of the versions comprises an executable file of the application compatible with the file format of at least one of the versions.

34. (Original) The universal-signature-object viewer of claim 29 wherein the application compatible with the file format of at least one of the versions operates under the control of the universal-signature-object viewer.

35. (Original) The universal-signature-object viewer of claim 29 further comprising:

a verification means for verifying the digital signature.

36. (Original) The universal-signature-object viewer of claim 35 wherein the verification means verifies the digital signature against an archived copy of the digital signature obtained from a transaction server.

37. (Original) The universal-signature-object viewer of claim 29 further comprising:

- a printing means for providing a print copy of information concerning the universal signature object.

38. (Original) The universal-signature-object viewer of claim 37 wherein the information concerning the universal signature object comprises at least one data field selected from the group of data fields comprising:

- use-permission regarding permitted use of the universal signature object;

- a list of items contained within the universal signature object;

- at least one version of the digital data;

- a digital signature;

- a name of a signatory of the digital signature;

- a timestamp of the digital signature; and

- digital signature verification results.

39. (Original) The universal-signature-object viewer of claim 37 wherein the print means digitally watermarks the print copy.

40. (Original) The universal-signature-object viewer of claim 29 wherein:

the universal signature object further comprises at least one additional digital signature;
the digital signatures are timestamped; and
the viewer means displays the digital signature in timestamp order.

41. (Original) The universal-signature-object viewer of claim 29 wherein the universal-signature-object viewer operates within a browser application.

42. (Original) The universal-signature-object viewer of claim 29 wherein the universal-signature-object viewer is incorporated into the universal signature object.

43. (Original) The universal-signature-object viewer of claim 42 wherein the universal signature object is a standalone application.

44. (Cancelled)

45. (Currently Amended) A method for a signatory to digitally signing digital data, sign digital data created by a first application, comprising:

accessing a signatory's private-public key pair;
authenticating the private-public key pair as being associated with the signatory; and
in response to a universal signature object of the digital data not existing:

using the signatory's private key to generate a first digital signature of signature data, wherein the signature data is a function of the digital data; and

~~generating the~~generating a universal digital signature object of the digital data, the universal signature object comprising:

~~at least one~~a first version of the digital data, wherein ~~each version has a~~data having a first file format;

a second version of the digital data having a second file format different from said first file format;

~~the~~said first digital signature; and

~~information concerning~~information identifying an application compatible with the file format of at least one of the ~~versions.~~first and second versions of the digital data.

46. (Original) The method of claim 45 wherein the signature data is selected from the group comprising:

one of the versions of the digital data;

the universal signature object, prior to inclusion of the digital signature;

a hash of one of the versions of the digital data; and

a hash of the universal signature object, prior to inclusion of the digital signature.

47. (Original) The method of claim 45 wherein the universal signature object further comprises:

a timestamp of the digital signature.

48. (Original) The method of claim 47 wherein the signatory verifies the authenticity of the private-public key pair and provides the timestamp.

49. (Original) The method of claim 45 further comprising the steps of:

requesting a tracking number from a transaction server; and
transmitting at least a copy of the digital signature to the transaction server.

50. (Original) The method of claim 45 wherein at least one of the versions of the digital data has a non-native file format.

51. (Original) The method of claim 45 wherein the universal signature object further comprises:

the signatory's public key.

52. (Original) The method of claim 45 wherein the universal signature object farther comprises:

use-permission information regarding the use of the universal signature object.

53. (Original) The method of claim 45 wherein the universal signature object further comprises:

a universal-signature-object viewer for utilizing the universal signature object.

54. (Original) The method of claim 53 wherein the universal-signature-object viewer for utilizing the universal signature object comprises:

an application launching means for launching the application compatible with the file format of at least one of the versions; and

a viewer means for displaying information concerning the universal signature object.

55. (Original) The method of claim 45 wherein the universal signature object further comprises:

a signing program for modifying the universal signature object to include an additional digital signature.

56. (Original) The method of claim 45 further comprising the step of:

in response to the universal signature object of the digital data existing:

using the signatory's private key to generate a digital signature of signature data, wherein the signature data is a function of the digital data; and

modifying the universal signature object to include an additional digital signature.

57. (Original) The method of claim 56 wherein the signature data is selected from the group comprising:

one of the versions of the digital data;

the universal signature object, prior to inclusion of the digital signature;

a hash of one of the versions of the digital data; and

a hash of the universal signature object, prior to inclusion of the digital signature.

58. (Original) The method of claim 57 wherein the universal signature object further comprises:

a timestamp of the digital signature.

59. (Original) The method of claim 57 further comprising the steps of:

requesting a tracking number from a transaction server; and
transmitting at least a copy of the digital signature to the transaction server.

60. (Original) The method of claim 57 wherein the universal signature object further comprises:

the signatory's public key.

61. (Currently Amended) A signing program for binding a digital signature of a signatory to digital data, the signing program comprising:

a key-accessing means for accessing a signatory's private-public key pair;

a key-verification means for authenticating that the private-public key pair is associated with the signatory;

a universal-signature-object generating means for, in response to a universal signature object of the digital data not existing:

using the signatory's private key to generate a digital signature of signature data, wherein the signature data is a function of the digital data; and

generating the universal signature object of the digital data, the universal signature object comprising:

at least one version of the digital data, wherein each version has a file format;

a second version of the digital data in a different file format from said first version's file format;

the digital signature; and

information concerning an application compatible with the file format of at least one of the versions.

62. (Original) The signing program of claim 61 wherein the signature data is selected from the group comprising:

one of the versions of the digital data;

the universal signature object, prior to inclusion of the digital signature;

a hash of one of the versions of the digital data; and

a hash of the universal signature object, prior to inclusion of the digital signature.

63. (Original) The signing program of claim 61 wherein the universal signature object further comprises:

a timestamp of the digital signature.

64. (Original) The signing program of claim 61 further comprising:

a transaction tracking means for requesting a tracking number from a transaction server.

65. (Original) The signing program of claim 64 wherein the transaction tracking means transmits the digital signature to the transaction server.

66. (Cancelled)

67. (Original) The signing program of claim 61 wherein the universal signature object further comprises:
the signatory's public key.

68. (Original) The signing program of claim 61 wherein the universal signature object further comprises:
use-permission information regarding the use of the universal signature object.

69. (Original) The signing program of claim 61 wherein the universal signature object further comprises:
a universal-signature-object viewer for utilizing the universal signature object.

70. (Original) The signing program of claim 69 wherein the universal-signature-object viewer for utilizing the universal signature object comprises:
an application launching means for launching the application compatible with the file format of at least one of the versions; and
a viewer means for displaying information concerning the universal signature object.

71. (Original) The signing program of claim 61 wherein the universal signature object further comprises:
a signing program for modifying the universal signature object to include an additional digital signature.

72. (Original) The signing program of claim 61 wherein the universal-signature-object generating means further performs the step of:

in response to the universal signature object of the digital data existing:

using the signatory's private key to generate a digital signature of signature data, wherein the signature data is a function of the digital data; and

modifying the universal signature object to include an additional signature.

73. The signing program of claim 72 wherein the signature data is selected from the group comprising:

one of the versions of the digital data;

the universal signature object, prior to inclusion of the digital signature;

a hash of one of the versions of the digital data; and

a hash of the universal signature object, prior to inclusion of the digital signature.

74. (Original) The signing program of claim 72 wherein the universal signature object further comprises:

a timestamp of the digital signature.

75. (Original) The signing program of claim 72 further comprising:

a transaction tracking means for requesting a tracking number from a transaction server.

76. (Original) The signing program of claim 75 wherein the transaction tracking means transmits the digital signature to the transaction server.

77. (Original) The signing program of claim 61 wherein the signing program is integrated with a primary application to provide digital signing capability for the files utilized by the primary application.

78. (Original) The signing program of claim 61 wherein the signing program operates within a browser application.

79. (Original) The signing program of claim 61 wherein the signing program is a standalone application.

80. (New) The method of claim 45 wherein the signature data comprises one of the versions of the digital data.

81. (New) The method of claim 45 wherein the signature data comprises the universal signature object, prior to inclusion of the digital signature.

82. (New) The method of claim 45 wherein the signature data comprises a hash of one of the versions of the digital data.

83. (New) The method of claim 45 wherein the signature data comprises a hash of the universal signature object, prior to inclusion of the digital signature.

85. (New) The method of claim 45 wherein said digital data is a single file.

86. (New) The method of claim 45 wherein said digital data is a single document.

86. (New) The method of claim 45 wherein said first file format is a word processor.